ENCLOSURE 6

REGULATORY/PUBLIC COMMENTS AND INSTALLATION POSITION ON UNRESOLVED COMMENTS

Davies Associates Comments on Draft Final, Finding of Suitability to Transfer,

Former Hamilton Army Airfield, POL Hill, (FOST)

June 2003

No.	Comments	Responses
	James C. Davies, Principal, Dated July 21, 2003	
	General Comments:	
1.	The FOST states the POL Hill property consists of 7.84 acres but the Army's Draft Quitclaim Deed, Hamilton Army Airfield, Marin County, California states that it consists of 5.84 acres. It is assumed but not stated in either the FOST or the Quitclaim Deed that the 2-acre differential is that portion of the property that lies within the Landfill 26 (LF 26) Buffer Zone. While the FOST says the 2-acre buffer zone area will be retained by the Army until such time that the title of LF 26 is transferred to the City, the Quitclaim Deed only mentions this area in one place which does not discuss ownership. This inconsistency among Army documents raises several concerns because first, it is not a certainty that the City will take title to LF 26 in the future so the FOST should not be dependent upon this transaction occurring and second, the environmental conditions of the 2 acre buffer zone portion are far from being fully known. Based upon this significant data gap, it does not seem possible that the Army can declare the 2-acre buffer zone area as suitable for transfer. Therefore, the City recommends that the Army clarify and rectify the status of the 2-acre buffer zone and make the FOST and Quitclaim Deed consistent. Additional recommendations on this issue are presented in the following Specific Review Comments.	The entire POL Hill Parcel consists of 7.84 acres. The portion of the POL Hill Parcel that will be transferred is 5.67 acres. The Landfill 26 Buffer Zone is a little more than 2 acres. The FOST has been revised for clarification. The Quitclaim Deed will be revised to correspond to the FOST. The environmental conditions for the POL Hill Parcel are identified in the Environmental Baseline Survey for Hospital Hill and POL Hill, dated November 2001, which is cited as a reference in Section 3 of the FOST. All releases of hazardous substances have been identified. Issues related to the adjacent landfill are being addressed under separate documentation.
2.	The FOST uses the names POL Hill and POL Hill Outparcel interchangeably in the document and Figure 1 labels the property as Outparcel A1 but the Quitclaim Deed uses POL Hill	The FOST has been revised to use the name "POL Hill Parcel."

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	Parcel consistently throughout. It is recommended that the Army select one name and use it consistently though out the FOST and Quitclaim Deed. If Outparcel is included in the name, it is recommended that an explanation for the term be included in the beginning of the FOST. Use of the full name of POL Hill Outparcel A1 should be considered in order to be consistent with the naming of the previous Army outparcels transferred at the base.	
	Specific Comments:	
1.	Section 2 – As mentioned in General Comment 1, the opening paragraph of this section states that the FOST encompasses the entire 7.84-acre POL Hill parcel including the 2-acre portion within the LF 26 Buffer Zone which will be retained by the Army until such time that the title of LF 26 is transferred to the City. This approach raises two primary concerns for the City. First, it is not a certainty that the City will take title to LF 26 in the future or, if it does, when that might occur. Therefore, it is recommended that the potentially misleading wording be removed from the FOST. Second, the environmental conditions of the 2 acre buffer zone area are far from being fully known so an accurate determination of its suitability for transfer cannot be made at this time. The significant data gaps for this area in the FOST include the following:	Statements indicating that the City will take the Landfill 26 Buffer Zone in later transfer have been removed from the FOST. The 2-acre Landfill 26 Buffer Zone has not been removed from the FOST. All known releases to soil in the buffer zone have been remediated prior to installation of the groundwater treatment plant. No releases of methane have been documented at POL Hill, just migration through the buffer zone. The only known releases in the buffer zone are of petroleum. Issues related to the adjacent landfill are being addressed under separate documentation.
	a. The known environmental conditions for the western portion of the 2-acre buffer zone area that appears to contain the eastern end of the Interim Gas Migration Control Trench for LF 26 (gas migration trench; see Specific Review Comment 9 below) that has been investigated, installed and monitored over the past two years so there is ample data on the area.	
	b. The known environmental conditions for the remainder of the 2-acre buffer zone area east of the gas	

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	migration trench based on previous Army LF 26 studies.	
	c. The unknown environmental conditions of the remainder of the 2 acre buffer zone portion east of the gas migration trench that is not scheduled for investigation under the California Regional Water Quality Control Board's (RWQCB) Time Schedule Order 01-140 until 2005.	
	It is clear that additional environmental investigation and monitoring work remains to be performed before a determination of suitability for transfer can be made for the 2-acre buffer zone area. Since it appears that the Quitclaim Deed does not include transferring the 2-acre buffer zone area to the City at this time, it is recommended that this area be excluded from this FOST and be included in the LF 26 FOST at the time it becomes suitable for transfer. Therefore, this FOST should only address the 5.84 acres that are in the Quitclaim Deed and will be transferred to the City.	
2.	Section 3 – This section presents the documents used by the Army to make its determination on the environmental conditions of the property yet several key documents that provide supporting statements and conclusions presented in the FOST are not listed. Recommendations are made in several of the following Specific Comments for documents that should be added to the list.	Only documents used to make findings and recommendations for this FOST have been included in the reference list. The following documents have been added to the reference list in Section 3 of the FOST: 1. 1992 Explanation of Significant Difference 2. California Integrated Waste Management Board, Letter to U.S. Army concerning FOST for Parcel POL Hill 3. Human Health Risk Assessment (HHRA) for Volatile Organic Compounds in Soil Gas Near Hamilton Army Airfield Landfill 26 4. Corrective Action Work Plan, Hamilton Army Airfield, GSA Phase I Sale Area, Revision 1
3.	Section 3.5 – This section states that Marcor removed the asbestos-containing materials (ACM) from the POL Hill buildings, that ACM does not pose an unacceptable risk to human health or the environment and that there were no known	Work done by Marcor is documented in Section 3 of the FOST as Reference #17, Unpublished project notes, logs, and laboratory data from Remedial Action Landfill 26 Phase I contract with Environmental Health, Research, and Testing, Inc.

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	releases of asbestos to the environment. However, there are no references to any MARCOR reports documenting the abatement that substantiate these statements. Therefore, it is recommended that references to the relative Marcor reports that document the ACM removal and the FOST statements be included in this section and that the reports be added to the Section 2 document list.	(EHRT) – 1993 through 1995. No report on asbestos removal activities at Building 737 was prepared by Marcor. Conclusions regarding the risk posed by asbestos and the statement that there were no known releases of asbestos to the environment from POL Hill have been drawn from the Environmental Baseline Survey (Reference # 2 in Section 3 of the FOST). No change to the FOST has been made.
4.	Section 3.11, Paragraph 1 – This paragraph refers to the 1989 Record of Decision and the 1992 Explanation of Significant Difference for LF 26 but these documents are not presented in Section 2. It is recommended that add references to these documents be added to this section and that the documents be added to the Section 2 list.	The 1989 ROD referred to in the FOST pertained to base closure and transfer of ownership of the entire Hamilton facility. It was not for the purpose of environmental cleanup, and therefore, does not need to be referenced in the FOST. The 1992 Explanation of Significant Difference has been added to the reference list in Section 3 of the FOST.
5.	Section 3.11, Paragraph 2 – The last sentence states that "Controls for adjacent properties within the 1,000-foot limit are typically administered through local agreements, policies and ordinances, which should be established for the POL Hill property adjacent to the landfill." As stated earlier in the second paragraph of Section 3, the referenced 1000-foot limit applies to the area within the landfill property boundary and not the area outside the boundary; please make the necessary change in the text. Furthermore, the end of the last sentence makes the recommendation that controls should be established for the POL Hill property adjacent to the landfill. The City believes that the FOST is a statement of findings and that it is not the appropriate place for a recommendation of this type. Therefore, it is recommended that the last part of the last sentence be removed.	According to a letter from the California Integrated Waste Management Board to Hamilton Army Air Field, dated June 18, 2003, "While Board staff preference would be to prohibit development other than non-irrigated open space, within 1000 feet of the Landfill 26 footprint, we realize that because of development potential, that is not a likely scenario. Therefore, we recommend that as a condition of transfer of this parcel to the City of Novato, any proposed future development at this site be required to comply with standards contained in Title 27 of the California Code of Regulations (27 CCR), Section 21190, Postclosure Land Use. This regulation requires that all postclosure land uses within 1,000 feet of the disposal area footprint shall be reviewed and approved by the Enforcement Agency. Furthermore, it states that all construction within 1,000 feet of the boundary of any disposal area shall be designed and constructed with an impermeable layer, venting pipes, and automatic gas sensors with periodic methane gas monitoring conducted inside all buildings or an equivalent design that

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		prevents gas migration into structures."
		This letter has been added as a reference to Section 3 and quoted in Section 4.B of Enclosure 5 to the FOST.
6.	Section 3.11, Paragraph 3 – The third paragraph refers to the RWQCB Orders requiring the "maintenance of the groundwater extraction well system and groundwater treatment plant at the landfill so it may be operated in the event pollutants are detected in the groundwater". However, apparently this requirement is not being complied with because the treatment plant is inoperative because the power has been disconnected. Also, it is understood that the Army has asked permission from the RWQCB to dismantle the treatment system inside the building. Please revise this paragraph to address these inconsistencies between the text and the RWQCB Orders.	The groundwater treatment system was constructed by the Sacramento District of the U. S. Army Corps of Engineers under the FUDS program. Whether or not the treatment system is being operated in compliance with RWQCB requirements is beyond the scope of this FOST. Questions regarding the status of compliance of the system should be directed at the Corps of Engineers. No change to the FOST has been made.
7.	Section 3.11, Paragraph 4 – This section discusses the groundwater conditions at LF 26 but does not include any mention of the Army's quarterly and annual groundwater monitoring reports. It is recommended that, at a minimum, the Army's most recent groundwater monitoring report be mentioned, referenced and the document included in the Section 2 list.	The most recent groundwater monitoring report on the POL Hill Parcel is cited as Reference # 10. Groundwater monitoring for Landfill 26 is conducted by the U.S. Army Corps of Engineers, and is not within the scope of this FOST. The discussion of Landfill 26 in Section 3.11 of the FOST is primarily taken from the Environmental Baseline Survey, which is referenced in Section 3 of the FOST (Ref. # 2). No change to the FOST has been made.
8.	Section 3.11, Paragraph 5 – This paragraph addresses the migration of landfill gases and the installation and monitoring of the gas migration trench. However, this paragraph does not provide any information about the Army's 2001 and 2002 Methane Remedial Measures Studies for LF 26 or the design presented in the Army's 2002 Final Workplan for Installation of Interim Landfill Gas Migration Control Trench. It is recommended that pertinent information from these reports be added to this paragraph along with references and that they are included in the Section 2 document list.	The gas migration trench is discussed in the FOST because it is located on the POL Hill Parcel. The location of the gas migration trench has been added to Figure 2 of the FOST. References to other documentation on the landfill gas studies were not included in the FOST because the landfill was deemed outside the scope of this FOST. This was due to the lack of impacts to the POL Hill Parcel because it is located outside the landfill boundary. A statement indicating where additional information on the landfill can be found has been added to Section 3.11 of the FOST.

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		A reference to the 2002 Human Health Risk Assessment (HHRA) has been added to Section 3 of the FOST (Reference # 22) because it is mentioned in the FOST.
9.	Section 3.11, Paragraph 5 – The fourth sentence states that the northeasterly portion of the trench is located near the limits of the POL Hill Parcel. However, correlating figures from the Army's 2002 Final Workplan for Installation of Interim Landfill Gas Migration Control Trench with Figure 2 in this FOST shows that the trench lies within the POL Hill Outparcel A1 boundary. Please revise the text accordingly and show the gas migration trench on Figure 2.	The fourth sentence has been corrected to state that the gas migration trench is located within the POL Hill Parcel. The location of the trench has been added to Figure 2.
10.	Section 3.11, Paragraph 6 – This paragraph summarizes the Army's December 2002 Human Health Risk Assessment for Volatile Organic Compounds in Soil Gas Near Hamilton Army Airfield Landfill 26 (HHRA) but does not include any mention of the Army's comprehensive Phase I and Phase II investigations in the buffer zone and adjacent Hamilton Meadows residential subdivision. It is recommended that acknowledgment of these investigations and a reference to the Army's HHRA be added to this paragraph and that the HHRA be added to the Section 2 document list.	The paragraph has been modified to include a reference to the Phase I and Phase II soil gas investigations. References to the 2001 work plan and addendum to the work plan for the Phase I and Phase II soil gas investigations have been added to Section 3 of the FOST (Reference # 23 and 24). A reference to the 2002 Human Health Risk Assessment (HHRA) has been added to Section 3 of the FOST (Reference # 22).
11.	Section 3.11, Paragraph 6 – In the second sentence, it is recommended that "human health" be inserted before "effects associated with" and that "and the adjacent residential development" be added at the end of the sentence for clarity and accuracy.	The sentence has been reworded to read as follows: The study evaluated the potential for exposures and potential for adverse human health effects associated with the occurrence of VOCs at the site and the adjacent residential development.
12.	Section 3.11, Paragraph 6 – It is recommended that the last sentence be revised for clarity to read similar to: "The lack of potentially significant human health risks at Landfill 26 and the adjacent residential development to the south strongly indicates that potential human health risks to recreational users at the POL Hill Outparcel A1 will be even lower and are therefore not a	The sentence has been reworded to read as follows: The lack of potentially significant human health risks at the residential development strongly indicates that there is also a lack of potential human health risks to recreational users at the POL Hill Parcel.

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	concern.	
13.	Section 3.11, Paragraph 7 – Please revise the last sentence of this paragraph according to General Review Comment 1 and Specific Review Comment 1 above.	The phrase "to the City of Novato" has been deleted from the end of the last sentence of Section 3.11, Paragraph 7.
14.	Section 4, Paragraph 2 – This paragraph states that the GSA Phase I Residential Cleanup Goal (RCG) for TPH in soils is 200 milligrams per kilogram (mg/kg) which is accurate for TPH quantified as diesel but it is 100 mg/kg for TPH quantified as gas which is believed to be the RCG used for JP4 during the remediation in this parcel. Please confirm and revise this paragraph accordingly. The RCGs were presented in a 1995 Army report prepared by Woodward Clyde Consultants and it is recommended that a reference to this report be added to this paragraph and that the document be added to the Section 2 list.	The paragraph has been revised to include the gasoline RCG. The source of the RCG values, Corrective Action Work Plan, Hamilton Army Airfield, GSA Phase I Sale Area, Revision 1, prepared by Woodward-Clyde Federal Services in 1995 has been added to Section 3 of the FOST as Reference # 23. In addition, the Woodward-Clyde 1995 document, Hamilton Army Airfield GSA Phase I Sale Area Cleanup Goals for Soil and Groundwater was used as a resource for a subsequent CH2M HILL document, dated April 2003, entitled Closure Report POL Hill Outparcel, Hamilton Army Airfield, that is cited as a reference in the FOST (Reference # 11).
15.	Section 4, Paragraph 3 – This paragraph states that the GSA Phase I Residential Cleanup Goal (RCG) for TPH in groundwater is 1,200 micrograms per liter (ug/l) which is accurate for TPH quantified as diesel but it is 600 ug/l for TPH quantified as gas which is believed to be the RCG used for JP4 during the remediation in this parcel. Please confirm and revise this paragraph accordingly. These RCGs were presented in a 1995 Army report prepared by Woodward Clyde Consultants and it is recommended that a reference to this report be added to this paragraph and that the document be added to the Section 2 list.	The FOST states that 1,200 ug/l is the combined RCG (for both diesel and JP4) in groundwater. The paragraph has been reworded for clarity. The final RCGs are presented in Closure Report POL Hill Outparcel, Hamilton Army Airfield, dated April 2003, which has been cited as a reference in Paragraph 3 of Section 4 and included as Reference #11 in Section 3 of the FOST. A reference has also been added to Section 3 of the FOST for the Woodward-Clyde document that is cited in the Closure Report.
16.	Section 4, Paragraph 5 – The discussion on high and low TPH concentrations is necessary but it is equally if not more important to present the most recent TPH analytical results, especially where the 1,200 ug/l cleanup goal is being exceeded. It is recommended that this information be added to this	The concentrations in groundwater fluctuate. The highest detected levels were in one of the most recent sampling rounds. This phenomenon indicates that maximum concentrations are highly dependent on groundwater elevations.

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	paragraph.	No change to the FOST has been made.
17.	Section 4, Paragraph 6 – It is recommended that the estimated time for the selected remedy of natural attenuation to achieve the groundwater cleanup goals and the groundwater monitoring and reporting frequency be added to this paragraph.	Because of the fluctuation in the maximum concentrations of constituents due to seasonal groundwater elevation changes, it is not possible to estimate the time needed to achieve groundwater cleanup goals.
		The groundwater monitoring and reporting frequency has not yet been determined by the regulatory agencies. Annual groundwater monitoring has been proposed by the Army.
		No change to the FOST has been made.
18.	Section 7, Paragraph 1 – The Hospital Hill and POL Hill EBS is mentioned in this paragraph. It is recommended that "Environmental Baseline Survey (EBS) replace "EBS", a reference to it be included to this paragraph and the report added to the Section 2 document list.	Environmental Baseline Survey has been spelled out in Paragraph 1 of Section 7 of the FOST. A reference to the EBS is already included in Section 3 of the FOST (Reference # 2).
19.	Figures 1 and 2 – As mentioned in General Comment 2, please revise both figures to include the selected parcel name.	The FOST's figures have been revised to use the name "POL Hill Parcel."
20.	<u>Figure 2</u> – As mentioned in Specific Comments 9, please add the gas migration trench to this figure.	The gas migration trench has been added to Figure 2 of the FOST.

A public meeting was held on July 23, 2003. No formal comments were submitted at the public meeting.